



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,082	12/06/2001	Dimitri Charrette	111387	5354
25944	7590	02/12/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			FELTON, AILEEN BAKER	
			ART UNIT	PAPER NUMBER
			3641	

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n N .

10/003,082

Applicant(s)

CHARRETTE ET AL.

Examiner

Aileen B Felton

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 15-34 is/are pending in the application.
- 4a) Of the above claim(s) 19-21 and 30-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-18 and 22-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Election/Restrictions***

1. Applicant' arguments are noted, the restriction requirement was made final in the previous action.
2. Claims 19-21 and 30-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected groups and species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5. Regarding claims 19-21, Applicant has elected as the binder a mixture of acrylic polymer and plasticizer.

***Request for Continued Examination***

3. Applicant's request for continued examination is noted. An action on the merits follows below.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the binder being a mixture of polyester and resin and a mixture of acrylic and plasticizer does not reasonably provide enablement for a mixture of polyester and plasticizer or a mixture of acrylic and resin. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these

Art Unit: 3641

claims. Currently, the claims can include a mixture of polyester and plasticizer or a mixture of acrylic and resin for which there is no basis in the specification.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 15-18 and 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheffee et al (5,861,571) in view of Finck et al(5,458,706).

Scheffee et al discloses a composition that is used in an air bag inflator device and comprises 38 % guanidine nitrate, 43 % ammonium perchlorate, 5 % cellulose acetate, and 11.4 % of lithium carbonate which acts as a chlorine neutralizer (see table 1 example 227). In col. 4, lines 37-45, additional binder are disclosed including polyacrylonitrile. In col. 5, lines 1-7, Scheffee indicates that the composition can also include a catalyst such as iron oxide. The particular binder with MW in excess of 200,000 is not disclosed.

Finck et al teaches a gas generating composition for use in an air bag apparatus with the use of polymer binder with MW from 10,000-300,000 and includes acrylic polymers (col. 4, lines 49-67, col. 5, lines 1-65). The composition includes ammonium perchlorate. Finck also teaches that the formulation can be made using any known method and can be made with or without solvents (col. 6, lines 52-55).

Art Unit: 3641

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the binder as taught by Finck with the gas generating composition disclosed by Scheffee since Scheffee discloses that a binder can be used with the gas generating composition and Finck teaches a known binder for use in a similar gas generating composition.

8. Claims 15-18 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knowlton et al (5,780,768) in view of Finck et al(5,458,706).

Knowlton et al discloses a composition that is used in an air bag inflator device and comprises 54.8 % nitroguanidine, 25.6 % ammonium perchlorate, and 19.4 % of sodium nitrate which acts as a chlorine neutralizer (see col. 11, lines 13-16). The composition can also include a binder (col. 10, lines 17-20). The particular binder with MW in excess of 200,000 is not disclosed.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the binder as taught by Finck with the gas generating composition disclosed by Knowlton since Knowlton discloses that a binder can be used with the gas generating composition and Finck teaches a known binder for use in a similar gas generating composition

9. Claims 15-18 and 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cabrera et al (6,123,359) in view of Finck et al(5,458,706).

Cabrera et al discloses a composition that is used in an air bag inflator device and comprises 40 % nitroguanidine, 22 % ammonium perchlorate, 11 % sodium nitrate which acts as a chlorine neutralizer, and 2 % of nitrocellulose binder(table 1, samples 1

Art Unit: 3641

and 2). In col. 5, lines 1-11, Cabrera indicates that copper chromite or iron oxide can be used as a catalyst. The particular binder with MW in excess of 200,000 is not disclosed.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the binder as taught by Finck with the gas generating composition disclosed by Cabrera since Cabrera discloses that a binder can be used with the gas generating composition and Finck teaches a known binder for use in a similar gas generating composition

10. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheffee et al (5,861,571) in view of Finck et al (5,458,706) as applied to claims 15-18 and 22-27 above, and further in view of Matsuda et al(5,780,767).

Matsuda et al teaches the use of potassium titanate in a gas generating composition for use in an air bag apparatus. The titanate is used with oxidizers such as AP and fuels such as nitroguanidine.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the titanate as taught by Matsuda with the composition of Scheffee since Matsuda teaches that it is known to use the titanate as a scavenger to reduce solid residue in air bag operations.

11. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knowlton et al (5,780,768) in view of Finck et al(5,458,706) as applied to claims 15-18 and 22-25 above, and further in view of Matsuda et al(5,780,767).

Art Unit: 3641

Matsuda et al teaches the use of potassium titanate in a gas generating composition for use in an air bag apparatus. The titanate is used with oxidizers such as AP and fuels such as nitroguanidine.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the titanate as taught by Matsuda with the composition of Knowlton since Matsuda teaches that it is known to use the titanate as a scavenger to reduce solid residue in air bag operations.

12. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cabrera et al (6,123,359) in view of Finck et al(5,458,706) as applied to claims 15-18 and 22-27 above, and further in view of Matsuda et al(5,780,767).

Matsuda et al teaches the use of potassium titanate in a gas generating composition for use in an air bag apparatus. The titanate is used with oxidizers such as AP and fuels such as nitroguanidine.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the titanate as taught by Matsuda with the composition of Cabrera since Matsuda teaches that it is known to use the titanate as a scavenger to reduce solid residue in air bag operations.

### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen Felton whose telephone number is (703) 306-5751. The examiner can normally be reached on Monday through Friday from 6:30 am to 4:00 pm.

Art. Unit: 3641

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198.

The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687. The fax number for submissions before a final action is (703) 872-9326, for after final submissions is (703) 872-9327, and customer service is (703) 872-9325.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

  
Aileen B. Felton